PIE SLICE ACCOUNTING

VISUAL REPORTING SIMPLIFIED

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MARCH 19, 2022
Performance accounting is fundamentally *multi-capital impact* accounting in principle ...

“[O]n a complicated subject where many misunderstandings can take place, it is good practice to first start by elaborating a common language or a common general framework. The one that we have tried to emphasize is the so-called ‘stock-based’ or ‘capital-based’ or ‘wealth-based’ approaches to sustainability. ... Current well-being has to do with both economic resources, such as income, and with non-economic aspects of people’s [lives] ... Whether these levels of well-being can be sustained over time depends on whether stocks of capital that matter for our lives (natural, physical, human, social) are passed on to future generations ....”

Stiglitz, J., Sen, A., and Fitoussi, J.  
*Report by the Commission on the Measurement of Economic Performance and Social Progress (and Mismeasuring Our Lives)*, 2010
What is capital?

To qualify as capital, a thing must:
- Consist of resources important for human well-being
- Be made up of stocks (S) and flows (F), by which:
  - Stocks continually produce flows
  - Flows are consumed for human well-being
- Only sometimes consist of economic things

Capital: A stock of anything and the continual flow of valuable goods or services it produces
Stocks: Accumulations of things that produce continual flows of valuable goods or services
Flows: Outputs of valuable goods or services that stocks of capital continually produce
Two illustrations of capitals in action ...

**AREAS OF IMPACT**

**Climate System**
(a form of global natural capital)

**Gender Equality**
(a form of internal social capital)

**STOCKS**

The Climate System
Governance Bodies

**FLOWS**

Temperature Regulation
Enforced Gender Policies

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The sustainability performance of a human social system can be determined by observing the relationship between its demands for vital capitals and their supply (i.e., \( \frac{D}{S} \), where any value of \( \leq 1.0 \) signifies sustainable performance)\(^1\)

\(^1\)Adapted from the ‘Sustainability Quotient’ (Social Footprints, McElroy, 2008); see Appendix below for more about this.
Visually reporting performance as D/S\textsuperscript{1}...

**AREAS OF IMPACT (AOIs)**

Performance reports are shown in both broad groupings and for individual areas of impact; specific AOIs and groupings are always entity-specific as determined from materiality analyses\textsuperscript{2}.

**UPPER THRESHOLDS**

The inner green band represents equilibrium between demands and upper limits in the supplies of vital capitals (stocks and flows), with measured results expressed in terms of demand as a percentage of supplies.

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\textsuperscript{1}Demand for vital capitals (D) over supply (S) of vital capitals

\textsuperscript{2}See, for example, “Making Materiality Determinations: A Context-Based Approach" (McElroy, 2019)
Flexibility in reporting...

The same report viewed in two different ways

NYQ = Note yet quantified
Key features and benefits of Pie Slice Accounting ...

- Displays performance in simple terms relative to a single sustainability threshold as compared to other, more visually complex models\(^1\)
  - Required resources are either available in sufficient supply or not!
- Does not force a predetermined set of indicators on all cases\(^1\) and instead defers to entity-specific materiality determinations
- Is applicable to human social systems at all scales of analysis and does not preclude use by organizations as some other models do\(^1\)
- Can be used in conjunction with any context-based performance accounting tool\(^2\)
- Is flexible and modular in terms of how areas of impact are defined, grouped and portrayed for visual reporting purposes
- Otherwise relies on common sense color coding and percentage reporting to tell the whole story of a population’s performance

\(^1\)See, for example, the Doughnut Economics model: [https://doughnuteconomics.org/about-doughnut-economics](https://doughnuteconomics.org/about-doughnut-economics)
\(^2\)For more on open-source context-based accounting, see here: [https://en.wikipedia.org/wiki/Context-Based_Sustainability](https://en.wikipedia.org/wiki/Context-Based_Sustainability)
Thank you!

Questions, comments and inquiries most welcome:

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Also, for an in-depth white paper on *Pie Slice Accounting*, see:

“Think Pies, Not Doughnuts: Introducing Pie Slice Accounting”

https://www.sustainableorganizations.org/Think-Pies-Not-Doughnuts.pdf
Appendix

How the “A/N” Sustainability Quotient Translates into the “D/S” Quotient Used in the Pie Slice Accounting Model
How $A/N^1$ translates into $D/S$

**Ecological Case**
- $A$ (Actual consumption)
- $N$ (Normative consumption)
- $A$ (Demand [for ecological resources])
- $N$ (Supply [immutable ecological limits])
- $D$ (Same as above)
- $S$ (Same as above)

**Social and Economic Cases**
- $A$ (Actual production)
- $N$ (Normative production)
- $A$ (Supply [of actual production])
- $N$ (Demand [for production])
- $D$ (Same as above)
- $S$ (Supply [of actual production])

**Scoring Conventions**
- For ecological impacts: $<1.0 = $ sustainable; $>1.0 = $ unsustainable
- For social/economic impacts: $\geq 1.0 = $ sustainable; $<1.0 = $ unsustainable

Same as above, while noting that although norms in the case of ecological impacts are driven by immutable limits in natural resources, in the cases of social and economic impacts there are no such limits. Why not? Because social and ecological resources are anthropogenic. Thus, the normative drivers in the latter cases are levels of demands, not supplies.

Here the quotient for the social and economic cases has been inverted in order to harmonize (i.e., make commensurable) scores received from the use of it with those received from the use of the quotient in the ecological case (i.e., where any score of $<1.0 = $ sustainable, and any score of $>1.0 = $ unsustainable). This is what makes simplified visual reporting with only one threshold, not two, possible in the Pie Slice Accounting model!

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$^1$As introduced in Social Footprints, McElroy (2008)